

A Convergence Study of Nursing Students' Knowledge and Attitudes toward the Elderly

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간호학과 학생의 노인에 대한 지식과 태도에 관한 융합연구

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Abstract The purpose of this convergence study was to identify the knowledge and attitudes toward the elderly of nursing students. The data, self-reported questionnaires were collected to 112 senior nursing students in B nursing college located in Cheonan City in Korea which were gathered during the period of March 3 to March 31, 2016. and analyzed using by SPSS 18.0. In this study, the mean scores of the level of the knowledge and attitudes toward the elderly in nursing students were 12.08, 3.85 respectively. It was showed a significant positive relationship between the knowledge and attitudes toward the elderly($r=.385$, $p<.001$). Specially the knowledge of physical area was a significant influencing on attitudes toward the elderly($Adj.R^2=.16$, $p<.001$). Therefore, the results obtained from this study are expected to provide a valuable baseline data to improve the future educational strategies in Gerontological Nursing.

• Key Words : Knowledge, Attitude, Elderly, Nursing students. Convergence study

요약 본 융합연구의 목적은 간호학과 학생들의 노인에 대한 지식과 태도에 대해 파악하기 위함이다. 연구대상은 천안에 위치한 B 대학의 간호학과 2학년 학생 112명이었고, 2016년 3월 3일에서 3월 31일까지 자가 설문지를 통해 자료를 수집하였다. 수집된 자료는 SPSS18.0 프로그램을 이용하여 분석하였다. 연구결과로는 노인에 대한 간호학과 학생들의 지식과 태도의 평균점수는 각각 12.08, 3.85 이었고, 노인에 대한 지식과 태도의 상관관계는 ($r=.385$, $p<.001$) 통계적으로 유의하였다. 특히 신체적 영역에 대한 지식이 태도에 유의한 영향요인으로 나타났다 ($Adj.R^2=.16$, $p<.001$). 그러므로 본 연구를 통한 결과는 앞으로 노인 간호학 교육과정을 개선하기 위한 주요한 기본 자료로 사용될 것이라 사료된다.

• Key Words : 지식, 태도, 노인, 간호학과 학생, 융합연구

1. Introduction

The life expectancy of human beings is gradually

increased to 81.20 years old in 2011 according to advances in the biomedical technology, the

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Received August 11, 2017

Accepted September 20, 2017

Revised September 12, 2017

Published September 28, 2017

improvement of economic levels and increasing of health concerns[1]. Also, the proportion of the elderly population is changed dramatically, the number of elderly people over age 65 is expected to reach 707,500 in 2018, exceeding 14% of the whole population and 10,218,000, 20% of the whole population in 2026, entering the super-aged society[2,3].

In an aging society, problems of the elderly are not only the individual or the family but also a social, particularly support systems for the elderly. Otherwise, economic security, social welfare and health care system for the elderly people are needed. In addition, the elderly people suffers from geriatric diseases as their physical and mental functions decline due to aging[4,5,6] and the number of the elderly people visiting medical institutions is expected to surge consequently. It was defined that the factors influencing the quality of life in the elderly people were the stress, subjective health condition[7]. The best solving methods in modern technologic society, ICT-based Welfare Services for the elderly people were increased surprisingly[8]. Some of the elderly people who have health problems demand for nursing care higher than the treatment as reported the study of community elderly protection system[9]. Accordingly, it is required healthcare team members in medical environment for special skills to the elderly. The role of nurses is becoming very important as the subjects that directly face and deal with the elderly in the field of medical care and provide practical services. And nurses' knowledge and attitudes toward the elderly are primary responsibility, very important factors affecting the quality of services for optimizing the physical, social, psychological function of the elderly[10].

To take care of the elderly must be prepared to understand a diverse changing aspect in physical, psychological, family-social and to know what treatments be a less stressful for the elderly. Of course, the geriatric nurse practitioner needs to train skills of supportive, restorative care for the elderly and

approaching the holistic care step by step. Most of all, it is very important that it is investigate whether nursing students who are the future nursing personnel, understand the elderly correctly and what kind of attitudes they have about the elderly. And attitudes are defined the expression of a perception toward the older people.

In US bachelor nursing education programs have been implemented successfully to facilitate appropriate attitudes about caring for the elderly[11, 12]. Modified education in geriatric nursing aims at the improvement of clinical practices as well as the nursing knowledge and it is necessary to approach the sufficiency of clinical training for students in variety of clinical settings. Recently, some studies was provided the more positive attitudes for the elderly was related to the higher qualities of the caring[13,14]. It could not be thought the separation between the knowledge and attitudes in psychosociology[15]. The assumption for the study was that nursing students with higher knowledge and more positive attitudes for the elderly would provide better care for the patients. It will be an initial step of improving the future educational strategies in Senior Nursing. If not, we need to the innovative educational strategies for nursing student. Based on these results, implications for policy, practice, and research were further discussed.

2. Materials and Methods

2.1 study design

This convergence study was carried in a descriptive survey research method to identify the level of the nursing student's knowledge and attitudes toward the elderly and the relationship between the nursing student's knowledge and attitudes.

2.2 Sample and Data analysis

The data were collected from March 3 to March 31, 2016 and subjects of this study were 112 nursing senior

students in B nursing college located in Cheonan City in Korea. The researcher explained the purpose of this study clearly to participants and informed permissions to collect the data from students were obtained. The SPSS program 18.0 was used to analyze the data. Descriptive statistics were used to identify the general characteristics of the participants. The Pearson correlation coefficient was used to determine the relationship between the knowledge and attitudes toward the elderly. And the multiple regression analysis was used to identify the knowledge influencing on attitudes toward the elderly.

2.3 Measures

The Facts on Aging Quiz Part 1(FAQ1) tool to measure the knowledge about aging was developed originally by Palmore[16]. This tool consisted of 25 items that they are divided into the following three subcategories: 11 items of the physical part, 6 items of the psychological part, 8 items of the family-social part. Responses indicating no stereotypes and no discrimination based on aging were scored 1point, and responses indicating stereotypes and discrimination were scored 0 point. The total score ranged from 0 to 25 point, with a higher score indicating a higher level of the correct knowledge about aging. The Cronbach's alpha in this study was .70.

The Semantic Differential Scale to measure attitudes of the elderly was initially developed by Sanders, Montgomery, Pittman, and Balkwell[17]. The Semantic Differential Scale consisted of 20 items, 7-point Likert-type scale consisting of 20 matched positive and negative item pairs of attitudinal statements about the elderly. Each scaled from 1point means "strongly negative" to 7 point means "strongly positive", with a higher score indicating the more positive attitude. The mean score of the Semantic Differential Scale was 3.5~4.5, regarded as a neutral attitude. The Cronbach's alpha in this study was .79.

3. Results

3.1 General Characteristics of participants

The mean age of the participants was 22.03±1.82 years old as shown in table 1. 60.7 percent of students have a religion. 55.4 percent of students lived with grandparents. And 56.3 percent of students served for elderly as shown in table 1.

<Table 1> General Characteristics o Participant (n=112)

Variables		n(%)	Mean(SD)
Age(yr)			22.03(1.82)
Religion	Yes	68(60.7)	
	No	44(39.3)	
Lived with grandparents	Yes	62(55.4)	
	No	50(44.6)	
Volunteer for elderly	Yes	63(56.3)	
	No	49(43.7)	

3.2 Knowledge of the Elderly

The result of nursing student's knowledge about the elderly was showed that the mean score of correct responses was 12.08 in 0~25 points as shown in table 2.

The mean score of the knowledge in physical area was 6.99 in 0~11. The mean score of the knowledge in psychological area was 1.88 in 0~6. The mean score of the knowledge in family-social area was 3.21 in 0~8. The highest ranking of nursing student's knowledge about the elderly was the physical part.

<Table 2> Knowledge of the Elderly (n=112)

category(item)		Correct reponse N(%)	Incorrect reponse N(%)	Mean±SD
Physical -area	1	79(70)	33(30)	6.99±1.29
	2	112(100)	-	
	3	21(19)	91(81)	
	4	6(5)	106(95)	
	5	67(60)	45(40)	
	6	3(3)	109(97)	
	7	104(93)	8(7)	
	8	100(89)	12(11)	
	9	71(63)	41(37)	
	10	44(39)	68(61)	
	11	36(32)	76(68)	

Psychology -area	12	6(5)	106(95)	1.88±1.16
	13	60(54)	52(46)	
	14	20(18)	92(82)	
	15	71(63)	41(37)	
	16	101(90)	11(10)	
Family -social area	17	72(64)	40(36)	3.21±1.43
	18	99(88)	13(12)	
	19	18(16)	94(84)	
	20	97(87)	15(13)	
	21	83(74)	29(26)	
	22	9(8)	103(92)	
	23	92(82)	20(18)	
Total	24	106(95)	6(5)	12.08±2.89
	25	83(74)	29(26)	

3.3 Attitude toward the Elderly

The result of nursing student's attitudes toward the elderly was showed that the mean score was 3.85 in 1~7 points as shown in table 3.

This result is consistent with findings of Hope[18], Lookinland[19], McMillan[20], and Lee[21]. The ranking 1 of the positive attitudinal statement about the elderly was "Wise-Poolish "item, and the ranking 20 was "Liberal-Conservative".

<Table 3> Attitude toward the Elderly

Variables	Mean±SD	Rank
Wise-Poolish	5.16±1.17	1
Kind-Unkind	4.14±1.36	8
Knowledgeable-Ignorant	4.63±1.02	3
Happy-Sad	3.87±0.90	11
Trustworthy-Untrustworthy	4.87±1.07	2
Generous-Selfish	4.14±1.38	7
Active-Inactive	3.16±1.38	18
Neat-Untidy	4.04±1.26	9
Friendly-Unfriendly	4.48±1.15	5
Interesting-Boring	3.44±1.07	14
Productive Unproductive	3.39±1.21	15
Healthy-Sick	2.77±1.04	19
Good-Bad	4.55±1.15	4
Flexible-Inflexible	3.45±1.18	13
Independent-Dependent	3.29±1.24	16
Liberal-Conservative	2.45±1.15	20
Attractive-Unattractive	3.81±1.00	12
Tolerant-Intolerant	4.33±1.40	6
Optimistic-Pessimistic	3.88±1.08	10
Uncomplaining-Complaining	3.21±1.08	17
Total	3.85±0.64	

3.4 Correlation of the knowledge and attitudes toward the

There is a significant correlation between the knowledge and attitudes toward the elderly($r = .385$, $P < .001$) as shown in table 4. It means the nursing students have the higher knowledge toward the elderly, they have the more positive attitudes.

<Table 4> Correlation of the knowledge and attitudes toward the Elderly

Variables	Attitude
Physical area r(p)	.334***
Psychology area r(p)	.242**
Family and social area r(p)	.280**
Total knowledge r(p)	.385***

*** $P < .001$, ** $p < .01$

3.5 The knowledge influencing on attitudes toward the Elderly

The result of the knowledge influencing on attitudes toward the elderly by multiple regression analysis was shown that the knowledge of physical area is a significant ($Adj.R^2 = .16$, $p < .001$) as shown in table 5.

<Table 5> The knowledge influencing on attitudes toward the Elderly

Variables	Attitude		
	β	t	p
Physical area	-2.35	-2.45	.016
Psychology area	-1.60	-1.55	.125
Family and social area	-.128	-1.46	.147
	Adj.R ² =.16	F=6.73	p<.001

4. Conclusion

This convergence study was to provide a basic data to develop a positive attitude and behavior of nursing students toward the elderly. The assumption for the study was that the nursing students with higher knowledge on the care for the elderly and more positive attitude on general perception to the elderly would provide better care for the patients.

Discuss the results of this study related to the nursing student's knowledge and attitude, the relationship between the knowledge and attitudes toward the elderly. First, The Facts on Aging Quiz Part 1(FAQ1) was used to measure the nursing student's knowledge about aging. The mean score of nursing student's knowledge about the elderly was 12.08 in a neutral range. Out of subcategories, the mean of the knowledge in physical area was higher than psychological and family-social areas regard as each range. Otherwise, The mean scores of the knowledge in psychological and family-social area were lower than neutral range. This result reflects the fact that the curriculum of the elderly nursing care in Korea is composed mainly of the materials centered on health promotion and illness of the elderly people, and relatively few opportunities to obtain the knowledge in psychological and family-social areas are available. Based on this results, it is proposed to develop a future curriculum to be able to approach more professional attitudes in psychological and family-centered areas around the elderly. It means the educational process is needed for the elderly to extend the multidisciplinary knowledge based in a positive cognition on aging.

Second, Also the Semantic Differential Scale was used to measure the nursing student's attitudes toward the elderly. The level of attitudes toward the elderly was 3.85 in a 7-point scale, which indicated a neutral point range (3.4~4.5). In this study, the highest ranking of positive attitudes were found to be 'wise', 'trustworthy', 'knowledgeable', 'good', 'friendly', 'tolerant', 'generous', 'kind', 'neat', 'optimistic' and the highest ranking of negative attitudes were 'conservative', 'sick', 'inactive', 'complaining', 'dependent', 'unproductive', 'boring', 'inflexible', 'unattractive', 'sad'. This is thought to be due to the influences of cultural concepts that are shaped under the strong influence of long-standing social concepts and value systems. According to the proportion of the elderly population growths, the elderly need a understanding of their own aging, positive attitudes

about themselves. Therefore, nurses may appreciate a priority nursing care for the elderly is needed a positive attitude priority.

Third, the relationship between the nursing student's knowledge and attitudes toward the elderly was a significant positive. And the knowledge of physical area was a significant influencing on attitudes toward the elderly. For more positive attitude, it is needed the change of nursing student's knowledge toward the elderly, educational strategies need to be devised[22]. The results of this study suggest that nursing education should be directed at changing nursing students' attitudes toward the elderly. According to experiences of volunteer activities for the elderly, direct or indirect exposure to well-older people may be helpful to promote nursing students' positive attitudes toward the elderly. Successful models of volunteer activities for the elderly are thought to make a cheerful conversation, to care a foot massage for a total body circulation, to walk around the park by the hand to encourage the skin-ship based on the physical area knowledge, All of these was to be reinforced a natural contact with the elderly. Faculties prepare to schedule step by step for nursing student's activity competence.

Furthermore, It is suggested that the following this study will be studied to find the level of the knowledge and attitudes in nursing students among participant's gender, age, experiences of volunteer for a old people and other influencing factors.

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